REMARKS

Claims 1-65 were presented for examination and were rejected. Applicant has amended claims 1, 3, 23, 34, 40-43, 48, 49 and 53-63. Applicant now requests reconsideration and allowance of claims 1-65.

Claim Objections

In paragraphs 2 and 3 of the office action, claims 48,49 and 53 were objected to because of various informalities. These claims have been amended as suggested by the Examiner to remove the formalities. Based on the amendments to claims 48, 49, and 53, Applicants respectfully request that the objections be withdrawn.

During Applicants' review of the application in preparing this response, a number of other typos and informalities were identified and corrected. These corrections are the reason for the amendments to claims 3, 23, 40-43, 48, 49 and 53-63. Applicants submit that no new matter has been added by these amendments to the claims.

Claim Rejections- 35 USC § 112

In paragraphs 4 and 5 of the office action, the Examiner rejected claim [49] because the limitation "modifying the links" lacked proper antecedent basis. The Applicants have amended claim 49 to provide proper antecedent basis, and respectfully request that the rejection to claim 49 be withdrawn.

Claim Rejections - 35 USC § 102

In paragraph 6 et. seq. of the office action, the Examiner has rejected independent claims 1 and 34 under 35 U.S.C. §102(b) as being anticipated by Capps ("Capps," US# 5,151,998). Independent claim 1 has been amended and now recites:

A method for generating one or more audio elements, the method comprising the steps of:

receiving user input;

creating a first audio element, with an audio data field, in response to the user input;

displaying a visual representation of the first audio element located spatially on a two dimensional layout capable of displaying non-audio elements, wherein a display position of the visual representation is independent of the audio data field in the first audio element and controllable by a user.

Currently amended independent claim 34 recites:

A method of outputting audio signals, the method comprising the steps of:

displaying a visual representation of at least one audio element located spatially on a two-dimensional layout capable of displaying non-audio elements , the visual representation of the audio element including an audio indicator;

receiving user input;

identifying a first audio element, with an audio data field, based on the user input;

retrieving first audio data for the identified audio element from the audio data field;

outputting the first audio data; and

highlighting sections of the audio indicator corresponding to a temporal ranges for which audio output has been provided.

The advantages, as mentioned on page 2 of Applicant's specification, of the claimed invention of claims 1 and 34 are quite substantial. Having the display position of a visual representation, of an audio element, controllable by a user and independent of any audio data field associated with the audio element allows for increased flexibility during editing of audio material. Moreover, such a system can use audio elements with other elements such as video, pictures, text, thumbnail images, etc., which may all be represented by icons. An audio creation

system operating under the methods of claims 1 and 34 is extremely cost effective because the process of displaying an audio element is not reliant upon a costly interpretation of a pre-existing position display field as found in conventional audio systems. Furthermore, the ability to freely position the audio element in a spatial relationship with other elements also allows it to be linked for context and association.

Capps discloses a complicated cut and paste method for editing sounds based on certain characteristics of adjacent segments of a stored waveform. Capps does not disclose the streamlined method for creating or identifying a first audio element, with an audio data field, in response to the user input, as recited in claims 1 and 34. The disclosed sound representation, as shown in waveform 20 of Capps found in column 2, lines 60-65 and Figure 2, does not resemble the claimed audio element that contains an audio data field, as recited in claims 1 and 34. Also, since Capps does not disclose an audio element with an audio data field, Capps has no need to disclose a method for outputting the audio data field. Furthermore, Capps does not disclose displaying a visual representation of the first audio element located spatially on a two-dimensional layout, wherein a display position of the visual representation is independent of the audio data field in the first audio element and controllable by a user, as recited in claim 1. Moreover, Capps does not provide a "two dimension layout capable of displaying non-audio elements". Capps simply discloses a system for displaying several waveforms on a screen simultaneously, but is silent with regards to displaying a visual representation of an audio element, with an audio data field, or non-audio elements, such that the position of the visual representation is independent of the data field and controllable by a user. Therefore, Applicant submits that claims 1 and 34 are patentably distinct over the art of record.

The Examiner has rejected independent claim 62 under 35 U.S.C. 102(b) as being anticipated by Harmony Central ("Harmony," New Sound Forge 4.5). Currently amended independent claim 62 recites:

> A method for displaying media objects in conjunction with outputting audio data, the method comprising the steps of:
>
> identifying an audio element;
>
> retrieving audio data for the identified audio element from an audio data field;
>
> outputting the retrieved audio data;
>
> retrieving a link object referring to the identified audio element;
>
> retrieving a media object referred to by the link object; and
>
> displaying the media object.

The claimed invention of claim 62 advantageously provides an efficient method for displaying objects through linking a media object and an audio object, which enables a greater degree of expressiveness and clarity in a display, while continuing to allow easy and efficient exchanges of large amounts of information.

Harmony discloses a sound editing system based on a spectrum analyzer function. However, Harmony does not disclose a method for outputting audio data comprising retrieving a link object referring to an audio element and retrieving a media object referred to by the link object. Harmony simply discloses a sound-editing module with no guideline on how to actually carry out a sound editing method of any kind, much less the method recited in claim 62. Furthermore, if Harmony could be construed to disclose a link object, an audio object, and a

media object, there is certainly no disclosure suggesting the retrieval of the linked object or the retrieval of the media object referred to by the link object (emphasis added).

The Examiner has rejected independent claims 44, 50, 55, and 57 under 35 U.S.C. §102(b) as being anticipated by Sound Forge V4.5 ("SOUND FORGE V4.5," Sound Forge for Windows 95 and NT version 4.5). Original independent claim 44 recites:

> A method of joining audio elements comprising:
>
> receiving user input identifying a first and second audio elements to be joined;
>
> creating a new audio element;
>
> retrieving information from the first audio element and storing it in the new audio element;
>
> retrieving information from the second audio element and storing it in the new audio element; and
>
> deleting the first and second audio elements.

Original independent claim 50 recites:

> A method of joining audio elements comprising:
>
> receiving user input identifying a first and second audio elements to be joined;
>
> retrieving information from the second audio element;
>
> storing the retrieved information from the second audio element in the first audio element; and
>
> deleting the second audio element.

Currently amended claim 55 recites:

A method of splitting an audio element, the method comprising the steps of:

receiving user input identifying an original audio element to be split, the original audio element containing a beginning point, an ending point, and a splitting point, the splitting point situated in between the beginning point and the ending point;

creating a first audio element;

creating a second audio element;

retrieving first audio data from the original audio element, the first audio data retrieved between the beginning point and the splitting point;

retrieving second audio data from the original audio element, the second audio data retrieved between the splitting point and the ending point;

storing first audio data in the first audio element;

storing second audio data in the second audio element; and

deleting the original audio element.

Currently amended claim 57 recites:

A method of splitting an audio element, the method comprising the steps of:

receiving user input identifying an original audio element to be split, the original audio element containing a beginning point, and an ending point, and a splitting point situated in between the beginning point and the ending point;

creating a new audio element;

retrieving audio data from the original element, the audio data retrieved between the splitting point and the ending point of the original audio element;

storing the retrieved audio data in the new audio element; and

deleting retrieved audio data from the original audio element.

The claimed invention of claims 44, 50, 55, and 57 advantageously provide a simple and cost-effective method for joining and splitting audio elements. Claims 44 and 50 allow for flexible and intuitive joining of single audio elements, or joining multiple audio elements as a part of larger multimedia messages. Claims 55 and 57 allow for flexible and intuitive splitting of single audio elements, or splitting multiple audio elements and rejoining the split audio elements as a part of a larger multimedia message.

SOUND FORGE V4.5 discloses a sound display module, containing amplitude versus time waveform functions. The various modules in Figures 2-4 disclose a variety of different sound waveform functions, however, no disclosure is made in SOUND FORGE V4.5 regarding a method for joining these waveform functions. Even if a method for joining these waveforms was disclosed by SOUND FORGE V4.5, the waveforms created by this method in no way resemble the audio elements of the presently claimed invention of claims 44 and 50. Furthermore, SOUND FORGE V4.5 does not disclose retrieving information from the second audio element and storing it in the new audio element (emphasis added), as recited in claim 44; and does not disclose storing the retrieved information from the second audio element in the first audio element (emphasis added), as recited in claim 50. Figures 3 and 4b of SOUND FORGE V4.5 simply disclose another waveform module with no disclosure of how the waveform was generated, unlike the method of claims 44 and 50. Lastly, no disclosure is made in SOUND FORGE V4.5 regarding deleting an audio element, as recited in claims 44, 50, 55, and 57. A waveform not appearing on a display module, as shown in Figures 3, 4b, 5b, and 6b of SOUND FORGE V4.5, does not constitute deleting a waveform, or an audio element for that matter.

SOUND FORGE V4.5 discloses a sound display module, containing amplitude versus time waveform functions. The various modules in Figures 5-6 disclose a variety of different sound waveform functions, however, no disclosure is made in SOUND FORGE V4.5 regarding a method for splitting these waveform functions, in accordance with the recitations of claims 55 and 57. In particular, SOUND FORGE V4.5 does not disclose receiving user input identifying an original audio element to be split, the original audio element containing a beginning point, an ending point, and a splitting point, the splitting point situated in between the beginning point and the ending point (emphasis added), as recited in claims 55 and 57. SOUND FORGE V4.5 merely discloses individual waveform functions, but does not disclose how these functions came to be displayed in a module, much less identifying, by user input, an original audio element with a beginning point, ending point, and a splitting point. No user or user input is identified by SOUND FORGE V4.5. Furthermore, SOUND FORGE V4.5 does not disclose storing audio data in a new audio element (emphasis added) where the audio data is retrieved from the original audio element, as variously recited in claims 55 and 57. In Figures 5b and 6b, SOUND FORGE V4.5 discloses more display modules containing more sound waveforms, yet no mention of the relationship between the "new" display modules 550, 555, 630 and the "original" display modules 540, 600 is made, nor is a method disclosed for splitting the "original" display modules 550, 555, 630 to form the "new" display modules 540, 600, in accordance with the claimed recitations of claims 55 and 57.

According to the office action, it appears that the Examiner has manually created windows containing a particular waveform and manually performed "cutting an pasting" to simulate the joining and splitting of waveforms in SOUND FORGE V4.5. The claimed invention strives to solve the inherent deficiencies (i.e. increased processing costs, lack of

flexibility and creativity, etc.) of a manual "cutting and pasting" process, as disclosed in SOUND FORGE V4.5, through the automated joining and splitting of audio elements, as recited in claims 44, 50, 55, and 57. Therefore, for at least theses reasons, Applicants submit that claims 44, 50, 55 and 57 are patentably distinct over the art of record and respectfully request that they be passed to allowance.

The Examiner has rejected independent claims 22 and 23 under 35 U.S.C. 102(b) as being anticipated by Winamp ("Winamp," Winamp version 2). Currently amended independent claim 22 recites:

A method for deleting audio elements, each audio element having a graphical component, the method comprising the steps of:

receiving user input;

responsive to user input, identifying an audio element to be deleted;

determining a visual representation including an audio indicator and audio gauge corresponding to the identified audio element;

removing the determined visual representation from display;

deleting the identified audio element from memory;

determining audio elements that have an ordinal value greater than the identified audio element; and

retrieving and decrementing the ordinal value of each audio element determined to have an ordinal value greater than the identified audio element.

Currently amended claim 23 recites:

A method for reordering two or more audio elements, each audio element having a graphical component, the method comprising the steps of:

receiving user input;

identifying a chosen set of audio elements to be reordered from the user input;

identifying a new order for the chosen set of audio elements based on the user input such that the audio elements are ordered spatially independent of each other;

determining a lowest ordinal value for the chosen set of audio elements;

modifying an ordinal value of each of the audio elements in the chosen set of audio elements using the new order; and

updating display of chosen set of audio elements to reflect the modified ordinal values.

The advantages of the claimed invention, as recited in claims 22 and 23, are impressive because they allow for automatic deleting and reordering of audio elements as opposed to the exclusively temporal arrangements found in conventional audio creation systems, wherein the audio information is arranged relative to its playback sequence. Audio elements are arranged independent of predefined playback sequences, allowing for more creativity and efficiency when arranging audio elements. Also, there is no spatial relationship between different audio elements such that each audio element has a unique ordinal position within a particular visual representation, thus enhancing the creative aspects of arranging the audio elements and associating them with other forms of media.

Winamp does not disclose a method for deleting or reordering audio elements comprising receiving user input (emphasis added), as recited in claims 22 and 23. Winamp merely discloses a printed screen from an audio software package that further discloses a textual arrangement of audio selections to be played through the software manager. In no way can Winamp be construed to disclose determining audio elements that have an ordinal value greater than the identified audio element and retrieving and decrementing the ordinal value of each audio element

determined to have an ordinal value greater than the identified audio element (emphasis added), as recited in claim 22. Also, Winamp does not disclose modifying an ordinal value of each of the audio elements in the chosen set of audio elements beginning with the lowest ordinal value and using the new order for updating display of chosen set of audio elements to reflect the modified ordinal values (emphasis added), as recited in claim 23. In both of these cases, Winamp merely discloses altering the playback order of a list of audio files in a strictly conventional sense (i.e. reshuffling the playback order in a random fashion as is found in common audio playback software).

The playback lists provided by Winamp require a predetermined spatial relationship as shown by the fact that each arrangement of songs (no matter how they are ordered) in Winamp must be confined to a particular spatial orientation (i.e. the top left corner of the display). Winamp does not disclose identifying a new order for the chosen set of audio elements based on the user input such that the audio elements are ordered spatially independent of each other (emphasis added), as recited in claim 23. Even if the songs of Winamp could be construed as the audio elements of claims 22 and 23, the songs of Winamp in no way contain a graphical component, as recited in claims 22 and 23. Furthermore, Winamp is completely silent with regards to a visual representation including an audio indicator and audio gauge corresponding to the identified audio element, as recited in claim 22. The representation of the ordered song list of Winamp is displayed in a conventional, one-dimensional, text-only format and not the complex visual representation with an audio indicator and audio gauge of the claimed invention.

In lieu of the aforementioned reasons, independent claims 1, 22, 23, 34, 44, 50, 55, 57, and 62 and claims 2-21, which depend from claim 1, and claims 24-28, which depend from claim 23, and claims 35-43, which depend from claim 34, and claims 45-49, which depend from claim

44, and claims 51-54, which depend from claim 50, and claim 56, which depends from claim 55, and claims 58-61, which depend from claim 57, and claims 63-65, which depend from claim 62 are patentably distinguishable over the cited references, including references cited but not applied.

Claim Rejections - 35 USC § 103

The Examiner has rejected independent claim 29 under 35 U.S.C. 103(a) as being unpatentable over of Harmony Central ("Harmony," New Sound Forge 4.5) in view of Schuur et al ("Schuur," US#.5,504,853). Original claim 29 recites:

> A method of associating audio elements with a media object, the method comprising the steps of:
>
> receiving user input identifying a media object and an audio element to be associated;
>
> creating a link object;
>
> storing a reference to the media object and the audio element in the link object; and
>
> displaying a representation of the link object with the representations of the media object and the audio element.

The claimed invention of claim 29 advantageously provides an efficient method for displaying objects through linking a media object and an audio object, which enables a greater degree of expressiveness and clarity in a display, while continuing to allow easy and efficient exchanges of large amounts of information.

Harmony discloses a sound editing system based on a spectrum analyzer function. However, Harmony does not disclose a method for outputting audio data comprising receiving

user input identifying a media object and an audio element to be associated (emphasis added). Harmony simply discloses a sound-editing module with no guideline on how to actually carry out a sound editing method of any kind, much less the method recited in claim 29. Furthermore, if Harmony or Schuur could be construed to disclose a link object, an audio object, and a media object, there is certainly no disclosure suggesting storing a reference to the media object and the audio element in the link object (emphasis added). Schuur adds only a data structure template for graphics objects and symbols, and a method for linking parent and child graphic objects. Schuur nor Harmony discloses displaying a representation of the link object with the representations of the media object and the audio element (emphasis added). Furthermore, there is no suggestion or teaching of any fashion within Harmony or Schuur for combining these two references. As mentioned previously, Harmony is strictly related to the manipulation of audio elements, and does not teach manipulating non-audio elements. Schuur, on the other hand, is concerned only with selecting and displaying graphics. At no point does Schuur even mention an audio element, much less storing a reference to the media object and the audio element in the link object. Therefore, neither Schuur nor Harmony would have offered a skilled artisan, at the time of the invention, the proper motivation to combine these two references.

In lieu of the aforementioned reasons, independent claim 29 and claims 30-33, which depend from claim 29, are patentably distinguishable over the cited references, including references cited but not applied.

Conclusion

In sum, Applicants respectfully submit that claims 1-65, as amended and presented herein, are patentably distinguishable over the cited references (including references cited, but not applied). Therefore, Applicants request reconsideration and allowance of these claims. In

addition, Applicants respectfully invite Examiner to contact Applicants' representative at the number provided below if Examiner believes it will help expedite furtherance of this application.

Respectfully submitted,
John W. Barrus et al.

Dated: 2/3/05

Andrew Israel, Reg. No. 52,447
Agent for Applicants
Fenwick & West LLP
Silicon Valley Center
801 California Street
Mountain View, CA 94041
Tel.: (650) 335-7805
Fax.: (650) 938-5200